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57

CACTUS AND SUCCULENT JOURNAL

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Of America

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No. 4



Trichocereus chiloensis growing in the snow-capped Andes near Santiago, Chile. Photo by Hans Becker.



CACTUS AND SUCCULENT JOURNAL

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PRESIDENT'S MESSAGE

Perhaps the most valuable work we are now undertaking is our experiment to determine the hardiness of the various cacti and other succulents. The important phase of this work is being conducted by James Gerdemann, of Warrenton, Missouri, where low temperatures, complicated by excessive rainfall, make this an ideal testing ground.

Since this is the period of the year for establishing plants for next winter's test, we ask that those of you who have volunteered to supply specimens do so at once. Others who have not been contacted hitherto will doubtless wish to send cacti and other succulents and we will appreciate it if they do. All plants should be sent to James Gerdemann, Route 2, Warrenton, Missouri. Be sure that the package contains the sender's name and address. At the same time we should be notified at Los Angeles of the kind and name of the material submitted.

We are soliciting plants especially from the Seattle, Oklahoma, New Mexico, and Texas groups and dealers, but we hope that all states will be represented.

FROM OKLAHOMA

We hear that our Sapulpa, Oklahoma, members are planning a cactus show; that's the spirit. We need those folks with us at each meeting for they are real dyed-in-the-wool cactus fans—speaking of Harold Whitley, Mrs. L. L. Roller and Charles E. Zeigler.

And now comes word from Tulsa that Marion S. Lahman, one of our most esteemed honorary members, is working on our native succulents other than cacti, which includes Sedums, Talinums and Portulacas. We are hoping that she will share her findings with us as she has with the cacti. She is another member who lives entirely too far away.

Now to the Panhandle: W. S. Martin went to Arizona last summer. We presume he was looking at cacti. He is an enthusiastic collector even if it is a long way out to Boise City, Oklahoma. It has been quite cold up that way this winter, making it quite a problem to care for tender plants. Mr. Martin is to plant some cacti in a roadside park for his city this spring.

About this said cold—we have lost many plants here in Oklahoma City, some freezing which had been planted outside since 1931 and others not as long. The *Echinopsis*, I tried outside, fell by the wayside or

should I say "Snowslide." Anyhow, not one survived. All native species, plants from Colorado, the Dakotas, and any place north of here are OK, also some plants from Texas and New Mexico. Plants coming from these two states, which did not survive, are mostly those from "Down Mexico Way" just north of the border.

About that permit now required to ship nursery stock into Oklahoma! We regret it is apparently necessary to make this charge, but we hear that Oklahoma is trying to balance her budget and they may do it at this rate. Of course we realize where it puts those of us who might buy a few cacti or other plants not available here. We just cannot get them, since the business of our nurseries selling such stock is so limited in this locality that they would not likely break even after the purchase of the permit. Perhaps we'll all have to turn "Okie" and come on to California to live so we can have our cacti. They are quite important, you know. All joking aside—we are not in favor of such trade barriers between states, as our Department of Plant Inspection is fully aware. Perhaps some action will be taken to remedy this situation. Anyhow, we have expressed ourselves and hope for results. We ARE in favor of plant inspection but we do not think this permit idea is exactly cricket.

The first cactus bloom in my collection was *Mammillaria viereckii* which flowered Jan. 7. A plant now in full bud is *Aporocactus flagelliformis* which is grafted onto *Nyctocereus serpentinus*. The funny thing about it is that the stock is dead, leaving the live blooming plant sitting on top of the dead stem. It has eight buds on ten or twelve tails and seems to be doing so well that I do not like to disturb it at this time, so am waiting.

We hear the plans for a National Convention have been abandoned at this time. Sorry, we hoped to meet all the big-wigs in the cactus world at this meeting. Perhaps we can meet them in "Kodachrome" in November, as I hear that such a film has been made and offered to our society for showing. Anyhow, you can't say we didn't ask you.

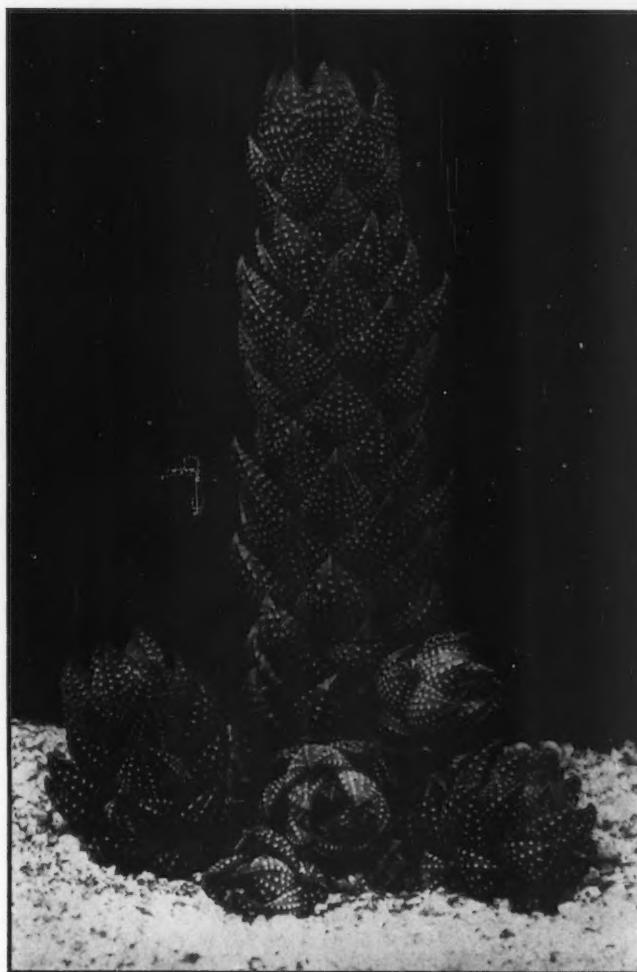
For Easter, here in Oklahoma, we had some sleet with freezing weather for two or three nights while many of our cacti were in bud. They were not far advanced, however, and do not seem to be damaged yet. Here's hoping this weather will "lay off." We've had enough for this winter.

"The Candid Reporter"

Last Call for Binding GLOSSARY OF SUCCULENT TERMS

No orders accepted after April 30

These sections can now be removed for binding. Send your sections to the Cactus Society, 136 W. Union, Pasadena, and they will be bound in cloth and returned to you postage paid for \$1.50. Missing sections can be supplied at 20 cents each. There are a few bound copies available at \$3.85.



Haworthia Chalwinii Marl. et Berger, nat size.

Notes on Haworthias

By J. R. BROWN

Haworthia Chalwinii Marl. et Berger in Notizblatt Berl. Bot. Gart. IV (1906) 247; Berger in Pflanzenr. IV. 38 (1908) 85; Poelln. in Repert. Sp. Nov. XLIII (1938) 108.

Plant with leafy stems about 3-3.5 cm. in diam. and 15 cm. or more tall, more or less erect but becoming procumbent or decumbent with age, proliferous from or near the base and form-

ing dense clusters. Leaves closely imbricated, green, ovate-deltoid, incurved, about 20 mm. long and 15 mm. wide towards the base, face of leaves more or less flat, smooth, back of leaves rounded and keeled, with about 13 lengthwise rows of small white tubercles, which are also arranged in transverse rows, and which may be slightly more prominent on the keels.

Locality: This Haworthia was first collected by Dr. Marloth in the Graaff Reinet Dist. and

introduced to cultivation in Europe by him in 1905.

Named in honor of Mr. Chalwin, a former superintendent of the Municipal Parks at Cape Town, South Africa.

This Haworthia is well-known in our collections and is a distinctly attractive little plant, somewhat resembling *Haworthia Reinwardtii* Haw. and having much the same coloring.

Where grown in shaded light it remains quite green, but where exposed to bright light it assumes a bronzy purple color, more especially so during the resting period. The tubercles are often longer in the vertical direction, while in *Haworthia Reinwardtii* the tendency of the tubercles is to be longer transversely.

This plant is illustrated in Bot. Mag. t. 8828, but is hardly a good representation of the plant.



Apicra deltoidea (Hook. f.) Bak. approx. x 0.5

Notes on Apicras

By J. R. BROWN

Apicra deltoidea (Hook. f.) Bak. in Journ. Linn. Soc. XVIII (1880) 217, in Fl. Capens. VI (1896) 331; Berger in Pflanzenr. IV, 38. (1908) 118.—*Aloe deltoidea* Hook. f. in Bot. Mag. (1873) t. 6071.

Plant with densely leaved stems, to 30 cm. long and 5 cm. in diam., erect but decumbent with age and branching from the base. Leaves crowded in 5 very straight rows, horizontally spreading, smooth, deep shining green, deltoid-ovate, to 27 mm. long and 18 mm. wide towards the base, acuminate and pungent, face of leaves nearly flat, only the youngest slightly concave, back of leaves rounded and obliquely keeled,

margins thickened and flattened, the edges of the margins as well as the keel beyond the middle minutely serrulate.

Peduncle, including the spiciform raceme, 30-40 cm. tall, simple, stout, slightly compressed towards the base, with 2, 3, or 4 ovate-lanceolate sterile bracts; pedicels 1 mm. long, lower bracts 7-8 mm. long, deltoid, acute, membranaceous, closely appressed to the perianth tube; perianth 9-10 mm. long, greenish, tube oblong-cylindrical, the segments short, spreading, broadly obovate, white, with erose margins or occasionally a segment may have a bilobed margin.

Locality: type locality unknown. Recorded

from stony places in the Zuurberg Mountains in the Alexandria Dist., also from the Laingsburg-Matjesfontein area. These are widely separated localities in South Africa.

Introduced to cultivation in England by Thomas Cooper about 1865.

The name *deltoides* refers to the deltoid shape of the leaves.

Apicra deltoidea would seem to be distinct by the extremely straight rows in which the leaves are borne on the stems, never is there any twisting of the rows unless caused by some unnatural means in cultivation and the writer knows of no other *Apicra* which has this character.

The plant used to illustrate this *Apicra* was sent over here by the late Dr. Marloth many

years ago and is probably from the Laingsburg area, where he recorded finding this *Apicra*. This plant is now about 50 cm. in diam. with many decumbent stems and is too large to photograph well for illustration. A photo of this same plant taken several years ago is used to show the habit of the plant, but the top part of a decumbent stem in flower was photographed recently for the smaller illustrations, this stem was over 30 cm. long.

This plant agrees remarkably closely with the description in Bot. Mag. except for the greenish-white flower bracts; as these bracts are closely appressed to the perianth tube, are thin and membranaceous, the green color of the tube shows distinctly through them.

It flowers in Southern California from the middle of February to early April.



Apicra deltoidea. A. Top part of a stem showing the flowering habit. B. Top part of stem, nat. size.
C. Part of raceme, showing flowers, nat. size.



Brooklyn College Greenhouse which houses the Succulent Collection

Succulents at Brooklyn College

By HERMAN F. BECKER,* *Junior Biologist*

The task of higher education is not only to teach, but fundamentally to arouse curiosity and interest in the subject. It is the dissemination of knowledge through expert teaching supplemented with practical demonstration which seems most successful and receives wholehearted consideration at the Biology Department of Brooklyn College. If the art of pleasant presentation is practiced, many a seed of thought or suggestion may germinate on an open mind and heart. It may start a few on the narrow road of deeper study and lead perhaps to research and exploring. Should the result be merely benevolent understanding or in the case of botany or plant ecology, a small scale collection, then the effort has borne fruit. The modern college recognizes the importance of demonstration material close at hand and therefore, if possible, provides a greenhouse for student use. This supplies the students at a moment's notice with fresh material for all needs of his course and often eliminates much time requiring excursions to Botanic Gardens or Experiment Stations.

The new Brooklyn College, inaugurated 3 years ago and built over an area of more than 50 acres of landscaped grounds, boasts such a greenhouse. Its space is limited but it incorporates the last word in ideal construction and equipment.

There are 5 glass divided sections, which had to be filled with plants according to needs. In reassuring myself with the teaching staff about the requirements, I found that a crystallized collection of Succulents would be most desirable. Other sections were to be used for research and experimentation, for tropical economic plants, orchids, house, and insectivorous plants. One section serves as a classroom, where the students do practical work fitting into the curriculum.

Our Succulents, housed in the light and airy, temperature-controlled greenhouse, thrive exceedingly well and flower. It is not surprising, therefore, that no other group of plants arouses so much interest as these denizens of the desert. They are effectively displayed and properly labelled, Cacti on one side, all other Succulents on the other. This arrangement makes it clearer and easier to demonstrate the difference between Cacti and other Xerophytes, which superficially could be mistaken for the latter. To the expert and ardent collector these facts may seem trifling; but we must realize that most students right here at the greenhouse receive their first orderly conception of plant life and must start at the very beginning. With the simplest methods all possibilities of confusion must be eliminated.

We endeavor to have on display small groups

*Note the cover photograph of this issue of the JOURNAL was made by Mr. Becker's brother.

of Cacti with certain characteristics. First of all, and most important, are those to be found within our own boundaries. Included here are species from all of our southern and southwestern states, such as specimens of the Giant Sahuaro, Barrel Cactus, Star Cactus, Peyote, Rainbows, Prickly Pears, Devil's Pin Cushion and others. Common names play an important rôle and we find that students will remember these rather than botanical names, especially long ones. Although these scientific names must eventually be remembered, they are in the beginning exceedingly unpopular and in most cases cause hilarious uproar.

Next we have representatives from the more mountainous regions of Central and South America, where we point to the additional protection of hair as well as of spines, the most interesting and important members of this group being the Old Man. Still another group includes species which do not belong together geographically, but which demonstrate less pronounced characteristics of adaptation to dry conditions. They are the *Pereskias*, *Zygocacti* and *Epiphyllums*. These Christmas and Phyllo Cacti go big with the ladies, for they have no spines and repay the effort of care with gorgeous flowers of many hues. Last, but most important, is a col-

lection of grafts. In order to stimulate interest in Succulents, Mr. Howard O. Bullard of Hackensack, N. J., has donated many grafts of California origin, which now form the most valuable part of our collection. They are perfect crests of:

With this gift Mr. Bullard has done a great service in the field of Succulent study. Grafts and the procedure of grafting seem a definite stimulus to the student and a starting point, if all other inducement in the colorful line of Succulents has failed. There is fascination in the technical part of actually creating something with tools and skill as well as in the study of cell fusion in related varieties. The student who is given an opportunity to graft and who is successful—as is usually the case—has something to show, to be proud of, to talk about; he has



Part of the succulent collection at Brooklyn College

living proof of his success, sprung from knowledge; his incentive for further study deepens. At this point we may be certain to gain most with our prospective victims of Cactology; here they really start to ask questions en masse and one must be well prepared to answer them convincingly. Not mere curiosity, but a sincere scientific urge drives them on.

Other Succulents are not quite as valuable in this respect, because they do not lend themselves so easily to grafting and are for us not generally available. It would be far more difficult to assemble for this purpose a large enough number of stocks and scions of Euphorbias, Kleinias or even Stapeliads.

The table of Succulents contains a few species of the largest and most interesting groups. By far not adequate as yet for the purpose intended, the collection will grow slowly in due time. Already we can show some of the most striking species of Euphorbias to compare their similarity to Cactus. Here, *E. lactea*, *E. Hermentiana*, *E. pseudocactus* serve the purpose. Of the more leafy types, the Crown of Thorns, *E. splendens*, is outstanding. Blooming practically throughout the year, it keeps the entire Succulent house attractive when there are no other flowers. With a specimen of *E. Bojeri* and one of *E. splendens* we show two apparently identical plants and demonstrate the botanical difference of these distinct species. This makes the student realize the necessity of accurate observation. The more or less poisonous qualities of the latex and its use

by the natives of Africa provides more interesting lecture material.

The extensive family of the Crassulaceae, furnishing some of the best known Succulents such as *Echeveria*, *Sedum*, *Crassula* and *Bryophyllum*, gives us an excellent opportunity to demonstrate natural and artificial ways and means of propagation. There are *Sedum* leaf cuttings of all stages in their development, *Kalanchoes* and *Bryophyllums* with their plantlets appearing from the indentations of the leaf margin.

For those interested in the medicinal value of plants, we present the good old *Squill*, *Ornithogalum candatum*, known also under numerous, other botanical names. Our Climbing Onion, *Schizobasopsis volubilis* (*Bowiea*) crisscrossing the greenhouse along wires is covered with flowers. Among species of *Aloe*, *A. vera* with its exceptionally fleshy leaves and brown and gluey, bitter juice, lends itself to impressive demonstration. With a specimen of the Century Plant, *Agave americana*, much misinformation can be clarified, since the majority of the students and the public in general is still under the impression that it blooms only once in a hundred years. Our Ice plants are no novelty, for they are widely used for windowbox planting and bloom freely in our climate.

As time goes on, we will be able to accumulate more selected species of all Succulent groups suitable for our aims and thus widen the field and enrich the knowledge of our future generation.



Meet three well known Society members. Left to right: Pres. Marshall, William Hertrich and Dr. R. W. Poindexter classifying one of Mr. Hertrich's Echinocacti in the Huntington Botanical Garden. Courtesy *Sunset Magazine*—Haselton photo.

The following 8 pages are the first installment of the monograph
Colorado Cacti by Charles H. Boissevain and Carol Davidson

FOR AMATEURS ONLY

The desire to know more about cactus culture and to increase the size of my collection prompted me to try raising plants from seeds.

The natural temperature of the air here is too low in early spring to promote germination of the seeds. After a couple of false starts, which, though interesting, failed to produce the desired results, I decided to build an incubator that I might better control and maintain the high temperature necessary for germination.

The "incubator" was simplicity itself—a good solid box about 20 inches long, 12 inches wide, and 12 inches high was fitted with a hinged lid, and a rail was nailed on each inside wall about 4 or 5 inches from the bottom. Small slats were placed across the inside of the box, forming a platform to support the seed tray. The "heater" consisted of a 40-watt lamp in a porcelain cleat socket placed horizontally over a square of asbestos on the bottom of the box. The lamp was covered by a half round piece of stove pipe to diffuse the heat more evenly. A temperature of 80 degrees was maintained by this ordinary 40-watt Mazda lamp. So far everything was fine!

Purchasing about \$3.00 worth of the choicest seeds, I proceeded with the actual planting. The seed tray was marked off in 1/2-inch squares and a chart was made in duplicate on paper for recording the location of the various species so that an accurate record could be kept of germination dates, etc. Each seed was planted separately, not by the tweezer style, but by one almost as bad. The seeds were dropped through a transparent soda straw, with the lower end of the straw resting on the exact spot the seed was to occupy. The seeds were later covered by a fine layer of sand. All of the seeds planted, they were bottom watered and *carefully fitted* with a glass cover. The heat was turned on in the incubator and to say that germination was prompt would be putting it mildly—plants were up in 3 days and then the fun began!

The *so carefully fitted* glass cover was not lifted *immediately*, and to my dismay, one by one the seedlings turned transparent and disappeared. This was all very new and all I had ever read had not mentioned transparent cacti. Spraying with Semesan failed to halt the trouble, and soon the seedlings were no more. Lesson No. 1 learned will not soon be forgotten—and for the benefit of someone else new at seed culture, I later learned that the transparency of the seedlings was "damping off" which was caused by the *all too carefully fitted* glass cover. Remove the cover as soon as the first seedling is up and you won't be far wrong.

I no longer use one seed tray for all species

as they may and *do* germinate at different times. Separate seed pans are used and I find the one-pound coffee can suggested in "Cacti for the Amateur" has proven better than a single seed tray because, as the different species germinate, they may be removed from the incubator. I also found sowing seeds in the cans a lot easier than the tedious job of planting each seed separately. I plant about 100 seeds to the can to avoid overcrowding of seedlings and the attendant mortality at transplanting. Bottom watering the seed cans seems to produce better results than the top sprinkling method.

By experimenting I have found that tiny seedlings can be transplanted when less than a month old and also that transplanting hastens growth. After the seedlings were up, I placed them in a miniature "cloth house" about as long and wide as the incubator but with sides only about 5 inches high—this was fitted with an upright at each end about 16 or 18 inches high to which a ridgepole was attached. A little unbleached muslin run up on the sewing machine made a fine little tent with sides that lift up to the ridgepole. When placed in the sun, the tiny seedlings are protected from sunburn or chilly winds. The healthy growth attained has more than repaid me for the little trouble of building both "incubator" and "cloth house" and has added immensely to my pleasure and meager knowledge of cacti.

EVANGELINE LIPPENS, Vallejo, Calif.

GIANT MEXICAN CACTUS IMPORTED

From Valley Evening Monitor McAllen, Texas

LAREDO—A freak, or "giant," "Old Man of the Mountain" species of cactus arrived here from Mexico recently and is being held at the United States bureau of entomology and plant quarantine here for fumigation before being shipped to California.

The plant, five feet in diameter and weighing 1,370 pounds, is valued at \$500. It was found by a cactus collector in the state of Hidalgo and considered a rarity.

Ordinarily, the "Old Man of the Mountain," a popular species of cactus, is of slender, though sturdy growth, but this giant specimen is said by collectors to be not only an unusual departure from the general dimensions of the plant, but it bears a striking resemblance to an old man with shaggy white hair and beard.

EDITOR'S NOTE: No, we did not misprint "diameter" for "height."

With this volume, "Succulents for the Amateur," we collectors are pretty well equipped. Frankly, Britton and Rose is not of much help to the amateur, and your book on "Cacti for the Amateur" is the only really practical, comprehensive text to be had.

H. C. SHETRON, *Director*.
Ohio State Archaeological and Historical Society.

Beyond the Beaten Path

By LADISLAUS CUTAK

In charge of succulents, Missouri Botanical Garden

Prior to my visit to picturesque Mexico, I had read somewhere that there were three hot things associated with the country "beyond the Rio Grande." These three things, as I now recall, were volcanoes, revolutions and peppery food. To be sure there are a number of volcanoes, but most of them are inactive, although sometimes majestic snow-topped Popocatepetl, the Mexican Fujiyama, sends up innocent puffs of smoke just as a reminder of its old activity. Revolutions, too, have darkened the pages of Mexican history and frequently small sporadic outbursts still occur. As to peppery food, there is no denying that it is packed with the "up-an-at-'em" ingredients so harsh to American mouths, but the Mexican is fast learning to cater to the gastronomic propensities of his northern cousin.

These dreadful reminders, coupled with numerous others dug up by friends interested in my safety, did not, in the least, deter me from visiting Mexico. I was determined to see the country "south of the border" and as much of it as my time permitted. I cared not for the historic churches, the age-old pyramids, the archeological wonders or the paintings of Diego Rivera; these will have another day. I wanted to get off the beaten path as soon as possible, to study and to photograph the fascinating cacti that make their abode where "inhuman" man, because of natural obstacles, had not the opportunity as yet to despoil what God had willed.

To travel alone by auto offers several disadvantages, especially when great distances are to be traversed. To travel with a companion, in constant harmony, it is necessary that the two hearts be attuned as one. Sometimes it is difficult to locate a partner who possesses the same idiosyncrasies as your own; yet I have been very fortunate in choosing mine. Gustav Bantel, my companion on the 1938 expedition to Texas, again accompanied me to Mexico in the summer of 1939. Mr. Bantel, trained to a horticultural career in Europe, is the grower for the Sieloff Floral Company in St. Louis County, one of the largest firms specializing in cactus and succulent plants in the Midwest. Despite his 63 odd years, his age is no obstacle when trekking in the desert or climbing steep slopes in search of cacti, for he is a trained gymnast of the first mark. Needless

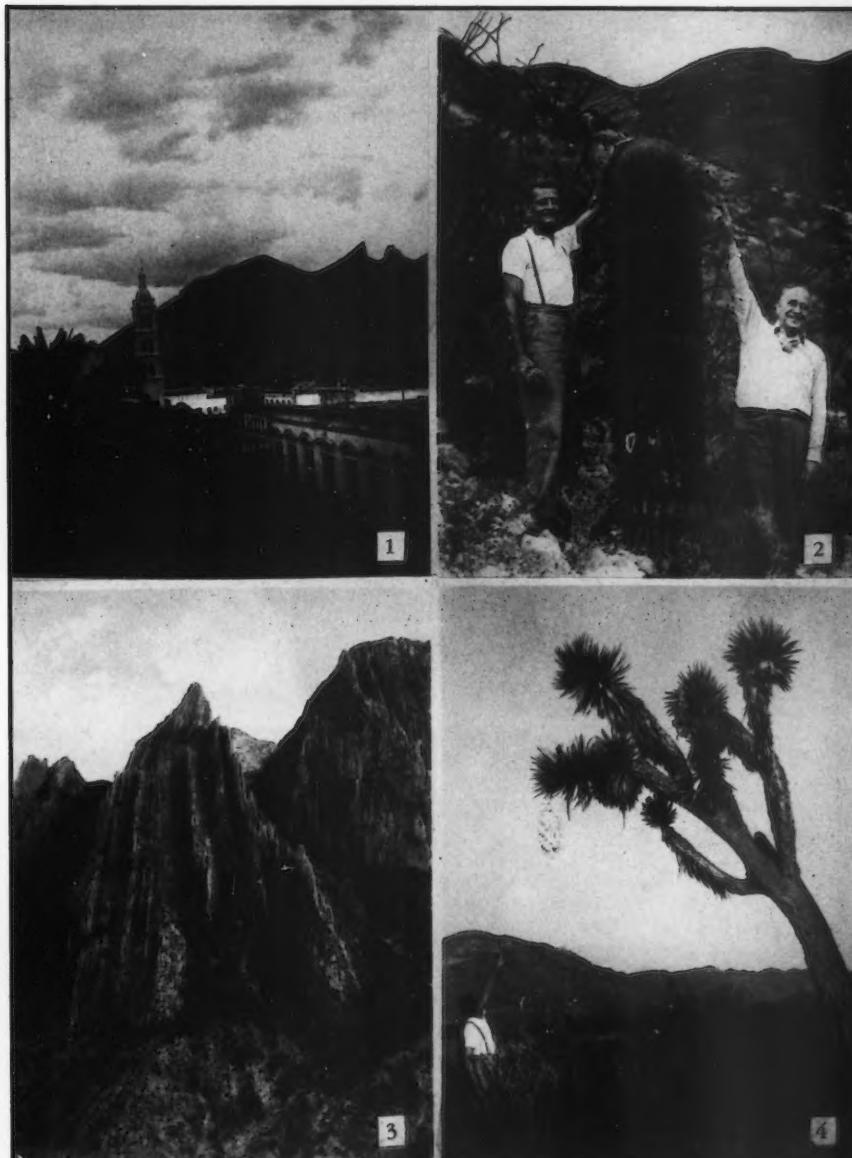
to add more, Bantel is everything that can be desired as a companion.

Our trip had its beginning one fine Saturday afternoon in July and the following Monday night we arrived at Laredo, gateway to our destination. Twenty-six hours of actual driving were consumed and 1150 miles covered. Before bidding farewell to our homeland, we had some detail to take care of, since I was taking into the country a German camera and had to register it with the America customs so that when I came to leave I would have some evidence that it was not bought in Mexico. All border routine finished, we found ourselves in the streets of Nuevo Laredo, headed for the outskirts and the open road.

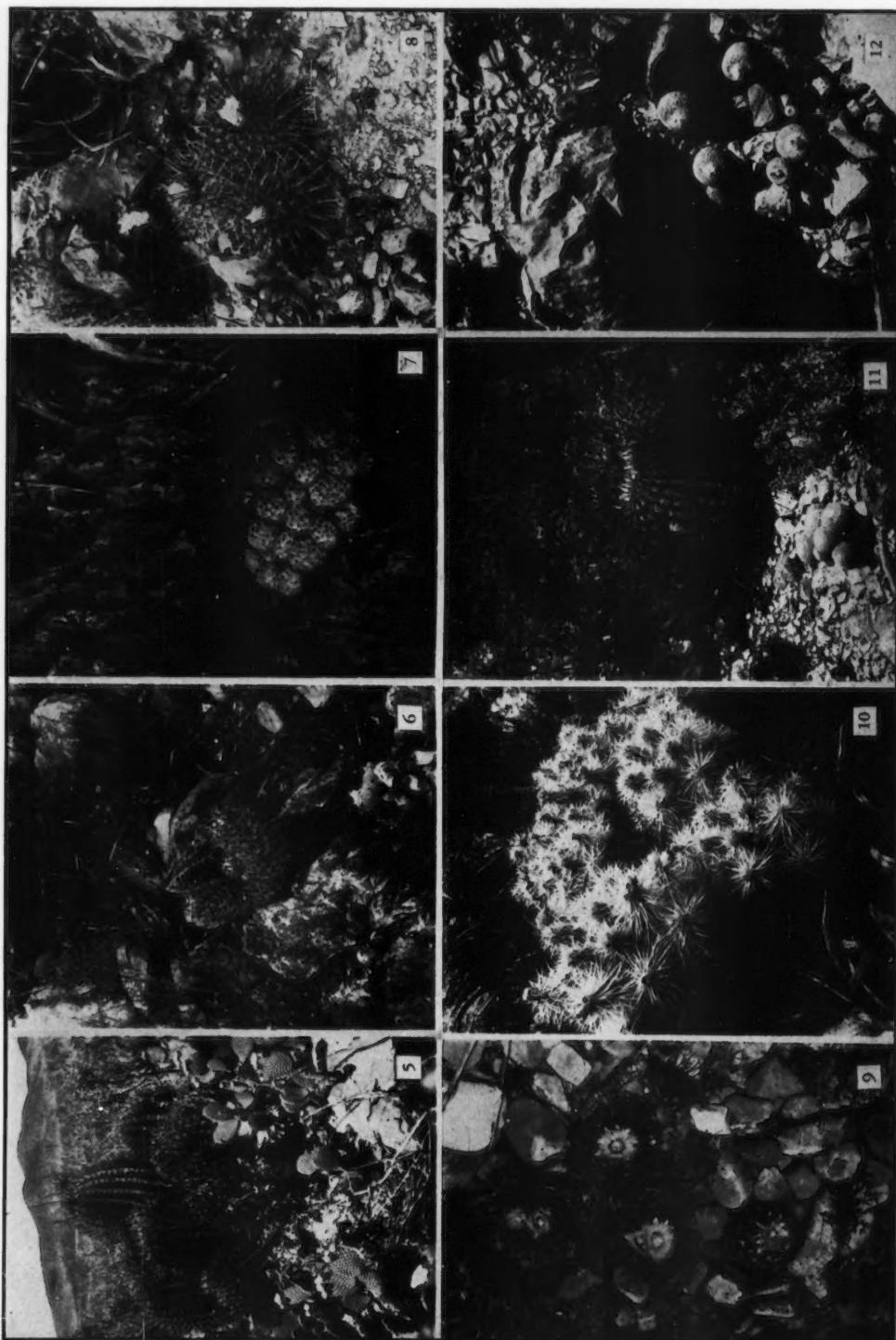
The scenery along the road is drab and uninteresting, a continuation of the Texas wasteland featuring low cacti and chaparral brush. The glorious views available at Mamulique Pass more than repay for the monotonous drabness until Monterrey is reached. Monterrey, founded in 1596 and famed for its Sierra Madre scenery, became our headquarters in northern Mexico and several forays were made into the surrounding country.

While in the city of Monterrey we were the guests of Dr. and Mrs. H. A. Geitz, one of the most charming couples I ever met. Atop Hotel Colonial, our hosts have their penthouse, commanding magnificent views in all directions. The famed Saddle Mountain, rising about 4000 feet above the city, appears near enough to touch, while in its shadow is the splendid 150-year old cathedral, notable for its fine tower and carved stone facade. The doctor and his wife are confirmed cactus enthusiasts and several hundred varieties of these interesting plants are grown in pots atop the hotel. Many of the specimens were gathered in the vicinity of Monterrey and Saltillo by their own hands, whenever the doctor finds a "momentito" from his vocation. Both are acquainted with Mexico thoroughly, having spent about thirty years in various parts of the country.

Rearranging his daily routine, the doctor was able to "sneak away" and accompany us on several trips into the mountains and deserts west of the city. One of his favorite collecting grounds



1. View from the Hotel Colonial, Monterrey, with Saddle Mountain and the Cathedral in the background.
2. Gus Bantel and Dr. Geitz beside a 7-foot *Ferocactus Pringlei* in Arteaga Canyon. 3. Huasteca Canyon near Santa Catarina, Nueva Leon. 4. *Yucca australis* in flower near El Chiflon, Coahuila.



Habitat photos taken by Ladislau Cutak in Mexico: 5. *Ferocactus Pringlei* and *Opuntia microdasys* in Carneros Pass, Coahuila. 6. *Neolloydia conoidea* at Rinonada, a mountain pass between Monterrey and Saltillo. 7. *Mammillaria plumosa* at Ojo Caliente. 8. *Thelocactus nidulans* in Cuesta de la Fierros. 9. *Coryphantha Palmeri* near Carneros, Coahuila. 10. *Opuntia tunicata* in Arteaga Canyon. 11. *Echinocactus Palmeri* in Carneros Pass, Coahuila. 12. *Epithelantha micromeris* at El Chiflon, Coahuila.

is spectacular Arteaga Canyon, snuggled in between the imposing heights of steep mountains, northeast of Saltillo in the state of Coahuila. Here, he told us, grow those magnificent "red heads" which answer to the botanical name of *Ferocactus Pringlei*. By all means, we had to see these ruby-spined columns that hug the steep rocky slopes and appear as if they were on fire in the glistening sun. One particular spot, that the doctor was more than delighted to show us, was that which featured a nine-foot specimen surrounded by seven smaller "barrels," a perfect architectural masterpiece of the cactus world. Yet when we arrived on the scene some vandal had already despoiled the towering column and remains of the once watery pulp were strewn down to the very edge of the canyon floor. Drast the villain who perpetrated this hideous crime and spoiled my opportunity to photograph this super-excellent biznaga. However, a seven-foot specimen grew in the same vicinity, scintillating with joy, since it had the good fortune to elude the vandal, and so we promptly recorded it for our album of habitat pictures. A stunning white, papery-sheathed cholla, *Opuntia tunicata*, grew in great abundance on the canyon slopes, often impeding our progress up the steep hillsides. Appearing startlingly attractive, this wicked cholla, nevertheless, is stoutly armed with prickles that can penetrate the stoutest shoe and inflict severe injury.

In Arteaga Canyon we also secured our first peep at *Opuntia microdasys* in the wild. What cactus fancier is not acquainted with this soft, velvety-appearing prickly pear? It is in almost everyone's collection, a truly universal favorite, despite the fact that it possesses cushions of troublesome glochids which so easily detach themselves at the slightest touch. I was once told that the tiny bundles of spicules, contained in each areole, make an excellent "itching powder" but I have no regard for the person attempting to use this product for this purpose. *Opuntia microdasys* is generally known as the "golden plush" or "bunny ear" cactus and both names are quite descriptive and popular with gardeners. In the wild state this platyopuntia grows in dense clumps with a creeping habit, but in pot culture it hardly attains any considerable size. In the open ground it makes an excellent hedge and one of the finest hedges can be seen in the three-acre cactus garden of the Pirtle household at Edinburg, Texas.

On the steep slopes of Arteaga Canyon, in the vicinity of El Chorro, we espied our first Mexican echeveria growing in companionship with *Opuntia tunicata*, *Agave lechuguilla*, *Hechtia texensis*, *Mammillaria chinocephala*, *Ferocactus Pringlei* and many other intriguing xerophytes. Sometimes this *Echeveria cuspidata* grew in rock crevices, but often it appeared at the base of the white-spined cholla or the lechuguilla, nestling in the exposed root systems of these wickedly-armed plants. Eric Walther, the echeveria specialist, in his search for this species, had to go about thirty miles beyond the El Chorro station before he was able to find it.

Considerable climbing was done in the Sierra Madres in search of interesting cacti and artistic pictures. On one particular occasion, when in the El Chorro region and several hundred feet above the canyon floor, I suddenly espied on the opposite slope, three striking ribbons of silvery water dropping over the picturesque rocks. Waterfalls always intrigue and fascinate, so I scampered, tumbled and slid down the treacherous slope and again found myself in the bottom of the canyon. Almost immediately I began ascending the other wall toward the direction of the cascades. On the way up, several massive ferocacti were noticed in the hidden gorges, which at one time were carved by the rushing waters. Countless lizards scampered madly over the hot boulders on my approach. Soon I felt the cool spray of the sparkling falls and was tempted to doff my clothes and plunge into the crystal clear pools formed at the foot of the cascades. Arteaga Falls indeed are well worth visiting and they were our first introduction to the many beautiful "cascades" that we encountered on our Mexican journey of more than 6000 miles.

Late one afternoon, returning from a cactus hunt in the mountains, Dr. Geitz suggested we stop off at La Huasteca, a most attractive place just off the town of Santa Catarina, a few miles northwest of Monterrey. The earth road to the town was covered with tons of dust, for it had not rained for months, and the speeding auto laid down a dense smoke screen in its wake until the picturesque canyon was reached. Almost immediately upon entrance we were hemmed in by towering perpendicular walls, with some of the most unusual formations. Proceeding up the canyon slowly we finally were forced to turn back when the condition of the road became unbearable.

able for driving. Then too, evening shadows were lengthening and we hesitated to continue farther on foot. Anyhow, we got a magnificent idea of the canyon and some day plan to return to explore further. Here is located *Agave Victoriae-Reginae*, one of the aristocratic members of the century plant clan. Two medium-sized specimens collected in this region now adorn the entrance to the Geitz's penthouse collection atop Hotel Colonial.

Senor Remo Damm, another enthusiastic cactus fan of Monterrey, was introduced to us and several interesting side trips were undertaken south and west of Saltillo with the genial senor as our guide. Soft-spoken Remo, a tall slenderly-built man, is employed in a clerical capacity but his weekends and vacations are spent roaming in the deserts and mountains in search of cacti, his insatiable hobby. The senor possesses a wonderful knowledge of the native plants, so no time was wasted in locating the cacti we were after. Many of the places worked over by Dr. W. E. Safford over thirty years ago were visited, as this territory embodies the principal cactus region of the states of Coahuila and Neuvo Leon. Senor Damm is particularly interested in crests and has one of the finest collections of these abnormalities that I have ever seen.

The trip to Carneros, thirty-five miles south of Saltillo, was replete with thrills galore. It had rained the night before and the dirt road was transformed into a quagmire of slippery mud and watery pools of uncertain depth. Often it was extremely hard to keep the car on the road. At one time we were almost in the ditch, but for some quick thinking, when all three minds clicked as one in the emergency.

Great forests of a peculiar yucca, *Samuela carnerosana*, are dominant in the higher valleys through which the road meanders. About Carneros it is exceptionally abundant. The plant attains a height of five to fifteen feet and bears at the top a dense cluster of sword-like leaves. The natives utilize this arborescent lily for many purposes. Fiber is extracted from the leaves and the leaves are also employed as thatch for houses; the trunks are used in construction work; and the flowers are fed to the cattle or even boiled or roasted and used for human food.

The mountain slopes revealed a host of interesting cacti, the showiest member being *Echinocactus Palmeri*, known locally as the "biznaga burra." Another conspicuous biznaga was *Ferocactus Pringlei* but this "barrel" has less corpulent stems than the former. *Opuntia microdasys* and *O. tunicata* are bosom companions and are widely distributed as well as *Mammillaria chionocephala* and the two species of *Neolloydia*, *N.*

Beguinii and *N. conoidea*. About Carneros we also found innumerable colonies of *Echinofossulocactus multicostatus*, simple globose bodies with numerous thin, wavy ribs. (*Echinofossulocactus* is now generally displaced by the genus *Stenocactus*). *Coryphantha Palmeri*, a small globular cactus, grows amongst limestone and almost every plant, under our surveillance, was in full bloom. The flowers appear at the top and are pale yellow in color.

The desert between El Chiflon and La Rosa would appear rather barren and bare, were it not for the sparse growth of thorny shrub and the weird-looking *Yucca australis*. A careful search, however, will reveal innumerable varieties hidden in the ground or under the bushes. One's eyes must become accustomed to the plants which we are looking for, because they look almost exactly like the ground itself. Our greatest difficulty was the search for the tiny *Ariocarpus Kotschoubeyanus*. This grayish-green "living rock" had to be hunted on hands and knees, since its small flat crown appears level with the surface of the ground. Readers may recall that this little plant, on its first introduction in Europe, sold for \$200. The dull bluish-green, dumpling-like *Lophophora Williamsii* also likes to draw itself into the ground, where it is not easily detected. *Echinocactus horizonthalonius* is plentiful in this region and every plant was resplendent with glorious pinkish blooms. An occasional *Ferocactus hamatacanthus* was discovered while *Coryphantha sulcata* appeared in scattered bunches.

I fear that I have already taken too much space, so must write finis to my story. However, many more miles, many more thrills, many more interesting sights and plants were encountered, for our journey extended to the Pacific Ocean and back to the Gulf of Mexico, encompassing mountain, canyon, desert and jungle terrain.

SOUTH WEST CACTUS GROWERS

A definite weekly program has now been arranged, the first Tuesday of each month is "Plant naming contest" and general business, the second Tuesday is "Trading night" with a plant talk, the third Tuesday is "Pot-luck supper" with a guest speaker, and the fourth Tuesday is "Beginners night" with plant discussions.

We are planning several trips very soon such as the one planned. Sunday, March 31, a tour was made to the famed Macchlen Gardens in Covina. Saturday and Sunday, April 20 and 21, Twenty-nine Palms and the Split Rock district will be visited. The Cactus Exchange accepted our invitation to accompany us, and we expect the Long Beach Cactus Club to do likewise.

Everyone is working hard getting the plants and setups ready for the Sixth Annual Free Show, June 15 and 16, at the Manchester Playground, 8800 South Hoover Street, Los Angeles.

E. S. TAYLOR,
Chairman Publicity Committee.

WHY COLLECT CACTI

This question, asked by a number of interested visitors to my cactus gardens, gave me the idea for this article. I sat down the other day and thoroughly analyzed that question. I wonder if many of us have ever given it a thought.

Do we collect cacti just to be different from our neighbor who may have a stamp, coin, match box, or some other collection? Do we collect cacti on account of their beautiful flowers whose blossoming makes us feel we have accomplished something? Do we collect them on account of their fantastic and grotesque forms? Do we collect them because the successful raising of them is like a challenge to us? Or do they give us a touch of the Great Southwest and foreign countries? You be the judge. Here is my story:

My parents and grandparents had always loved flowers and each year tried to grow them and have a nice flower garden along with the vegetable garden. One of my few childhood memories are the summers I spent at the farm of my grandparents. I will never forget the large garden of old fashioned flowers my grandmother used to grow, or of how pleased she was to give every visitor a bouquet of flowers. As I grew older and went to school I used to help my dad with his garden, until finally I had a little plot to work for myself. One of our big delights in the winter was to make out our annual order for vegetable and flower seeds. I can dimly remember the old catalog of John Lewis Childs, especially advertising cactus and seed. How I wished I had saved those catalogs! I can remember how elated I was at receiving my first order of cactus seed, but alas my disappointment, as nary a seed grew, regardless of the fine advertisements. After a few trials I gave it up.

Later I joined the Boy Scouts. One of the real thrills came when one summer our Scoutmaster informed us we were to have a two weeks' camping trip in the woods and sand hills about 5 miles east of Amboy. When our camp was completed we were camping in back of a cemetery called Prairie Repose, quite a location to camp. Some of the scouts were collecting bugs, butterflies, etc. Others were making a wood collection and I a pressed and dried flower collection. On exploring the cemetery we found covering one of the graves a large patch of cacti, which I now know to be the common prickly pear, *Opuntia opuntia*. What a time we had with the spines! In more ways than one, this bed was a source of fascination to us.

Time passed quickly by and I was soon out of high school, working, and at the same time, studying for my chosen profession. For a few years I forgot about gardening. Through the lack of physical exercise, as I spent so much time studying, I soon developed a series of headaches and was run down physically. After some time in the hospital, the doctor, who was a sensible fellow, told me to go home, study less, hike, swim, get outdoors, work in the garden, but Get-Out-Doors and get some physical exercise.

Our flower garden suffered, as my dad was getting along in years and could only work the vegetable garden. I undertook to revive the flower garden and did. I remembered the patch of cacti in the cemetery and hoped the sexton would let me have a plant, as I wanted a bed in my flower garden. I had an ideal sandy spot ready. On arriving at the cemetery, I was highly disappointed to find the bed was no more. I then determined to pay a visit to the site of our Boy Scout camp and dig a few plants of wild columbine. On the other side of the fence I was elated to find several beds of our *Opuntia*. The sexton had decided the cactus was a nuisance and dug it up and threw it

over the fence, where it was soon reestablished. I took home several nice plants and am fortunate I did. In the fall all the weeds, grass and leaves were burned, destroying part of the bed and then stock was turned in to roam and graze, destroying some more. My bed flourished and grew. Last year at one time it had forty-two blossoms open. This was my collection for a number of years.

In 1933 while visiting the Arizona building with its display of cacti at the Century of Progress in Chicago, that incurable disease known as "Cactitis" or something like it fastened itself upon me. To say I was interested by this wonderful display is only putting it very mildly. As we were visiting a friend and staying at his home, he informed us of cacti growing in the Sand Dunes of Indiana. Taking another day, we drove into Indiana and found several nice patches, also collected some. There is quite a difference in the shape and size of the pads and flowers. I hope to have an article ready after I complete another year's study, also many photographs. On the closing day, as we were in Chicago on business, we revisited the Century of Progress and as luck was smiling on us we purchased a few fine specimens of cacti. Out of this purchase I have only one plant left, a large clump of *Echinocerous fendleri*. It has grown nicely and blossomed for the first time this year. The others did not survive the errors of beginner. It is too bad I did not learn about the *Cactus and Succulent Society* at this time. My next additions were from purchases through local greenhouses. A few years later a friend informed me of the *Cactus and Succulent Society* and on joining it it was like pouring gasoline on a fire.

I have around five hundred pots of cacti and some succulents, so in the spring it is quite a task to move them outdoors and in the fall to take them in. That is where my physical exercise comes in. Of course with my transplanting, weeding, adding to my rock and desert garden I secure more. It is all pleasure to me and I am amply repaid by the beautiful flowers, the new growth, by the exchanging of plants with my fellow collectors, by the number of visitors to my garden, and by the communion with Mother Nature. Who can deny that there isn't a subtle something in raising cacti?

I have always been of the opinion that every one should have a hobby or collection of some sort. I am also of the opinion that one of the causes of our depression was that we did not properly utilize our leisure time. With a hobby or collection, even if it's small, we are utilizing our leisure time and giving our minds the necessary rest and change from the hurry, bustle and noise of our present day civilization.

PROF. ARTHUR BLOCHER, Amboy, Illinois.

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